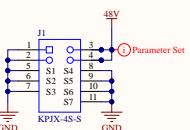
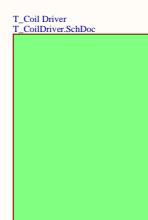
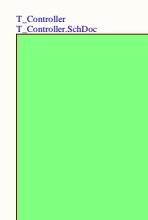
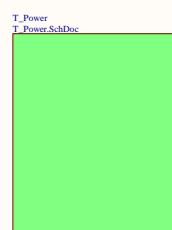


The KPIX-4S is the appropriate jack for the 65W DIN-Lampe. It uses the 4-pin locking mini-DIN which is preferred for commercial/medical supplies and higher currents and voltages.



The panel mount version is KPIX-PM-4S. See TE Connectivity 176271-1 or other Molex-type connectors for connection to the PCB.



A

A

B

B

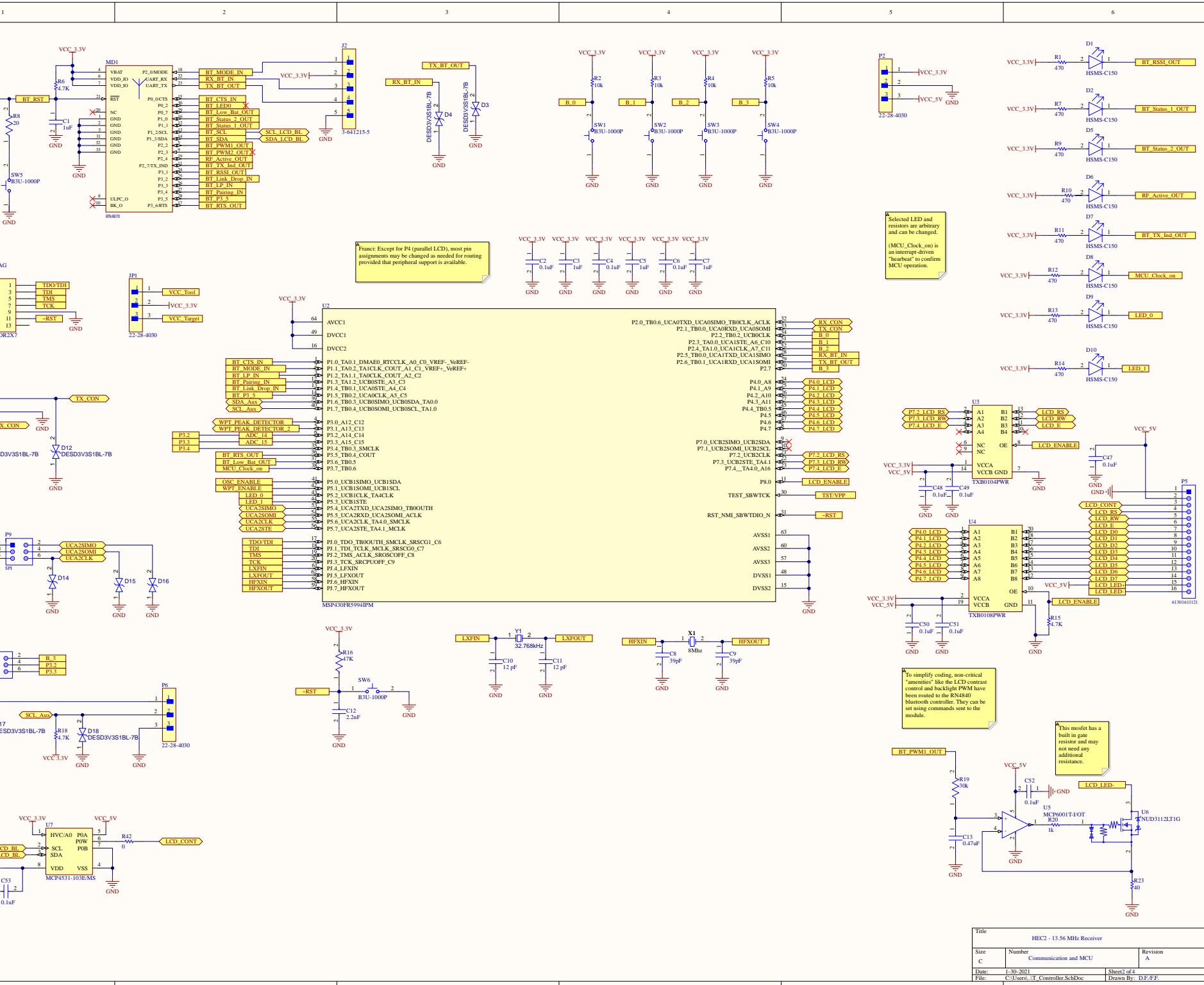
C

C

D

D

| Title                     |                                |                    |
|---------------------------|--------------------------------|--------------------|
| HEC2 - 13.56 MHz Receiver |                                |                    |
| Size                      | Number                         | Revision           |
| C                         |                                | A                  |
| Date:                     | 1-30-2021                      | Sheet 1 of 4       |
| File:                     | C:\Users...\Transmitter SchDoc | Drawn By: D.F.F.F. |

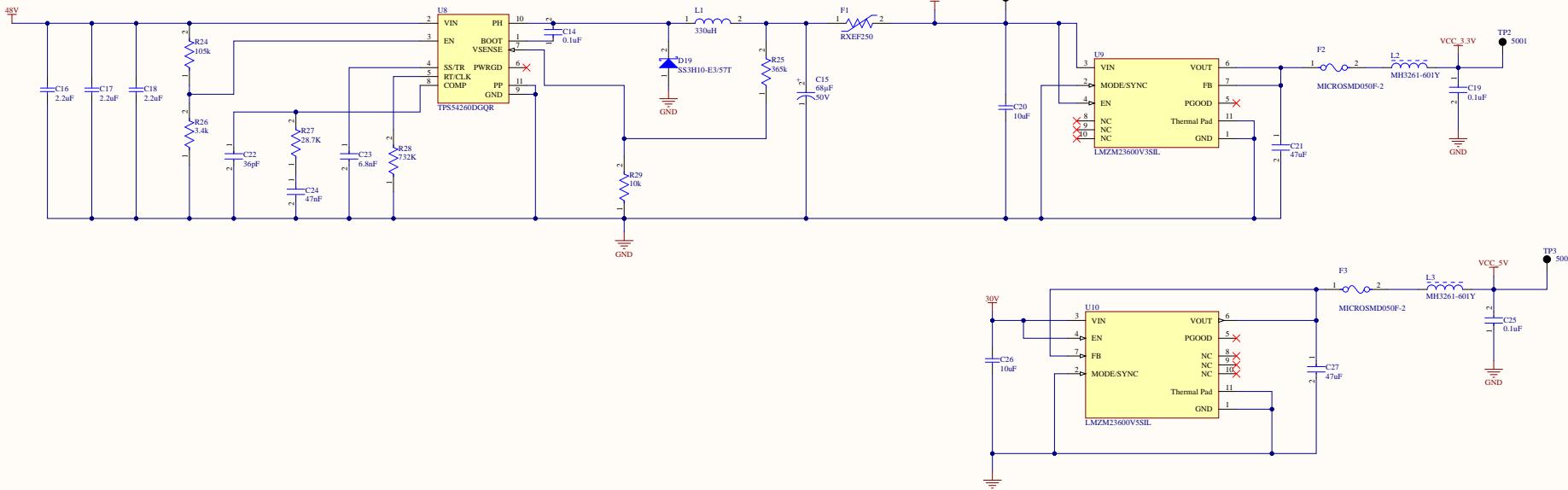


A

A

If the 3.3 and 5V are converted from the 30V output instead of the 48V input, it is possible to use the LM2562 instead of the TPS2565R1. They offer a 500mA max output instead of a 100mA output. Yes

Since the 5V and 3V supplies will be drawn from the 30V supply, I propose using a TPS54260 design. The cost is similar to the 54160 and the efficiency is slightly greater at average load.



B

B

C

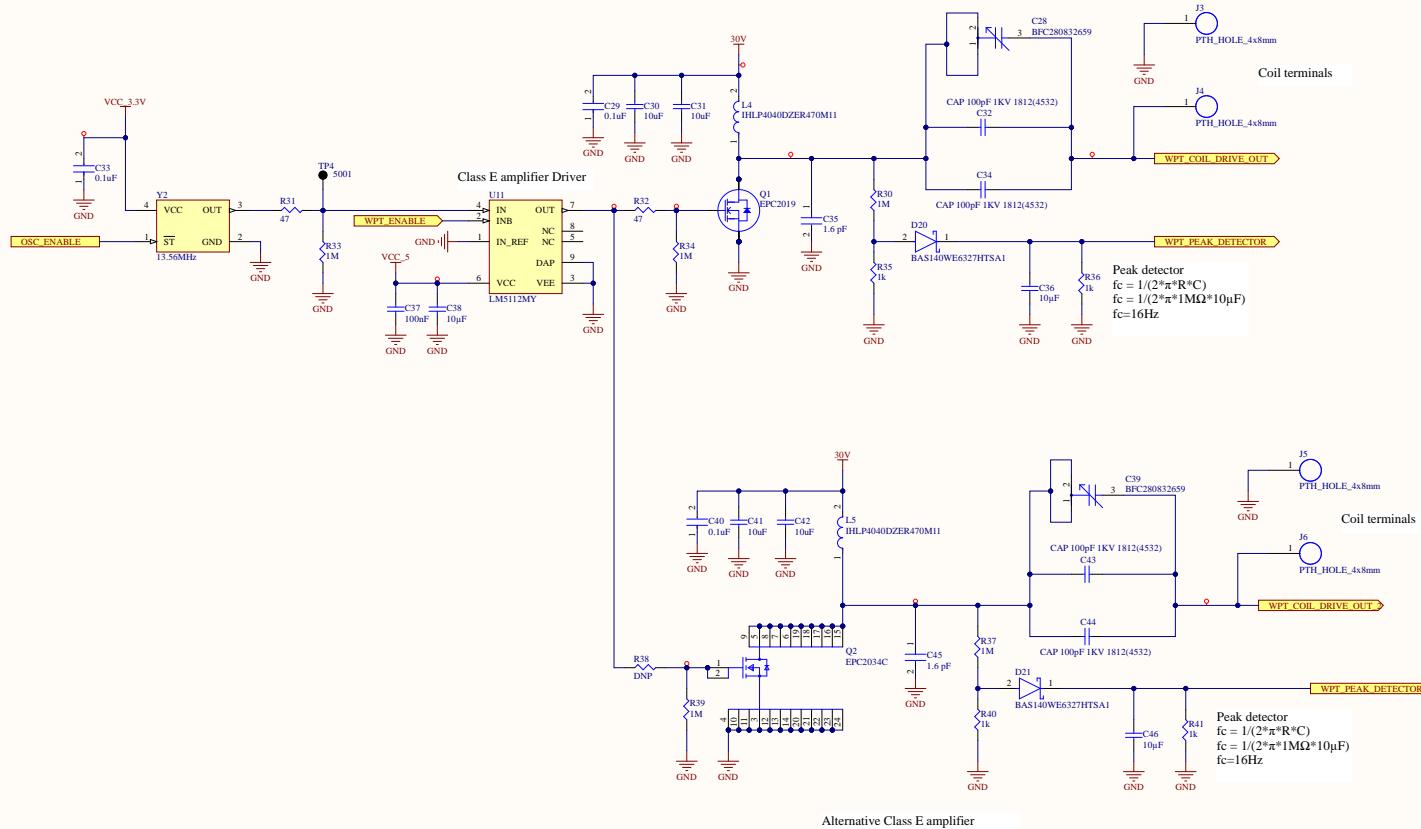
C

D

D

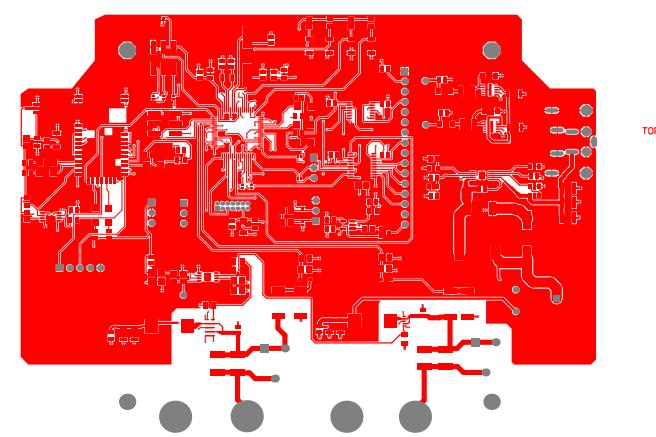
| Title<br>HEC2 - 13.56 MHz Receiver |                            |                    |
|------------------------------------|----------------------------|--------------------|
| Size<br>C                          | Number<br>DC-DC Converters | Revision<br>A      |
| Date:<br>1-30-2021                 | Sheet 3 of 4               |                    |
| File:<br>C:/Users/_T_Power.SchDoc  |                            | Drawn By: D.E.F.F. |

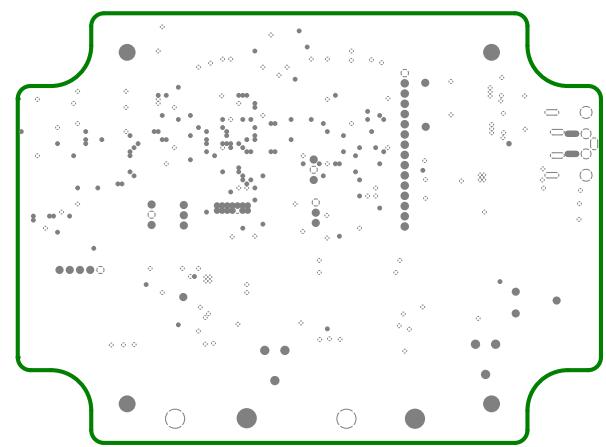
## OSCILLATOR AND COIL DRIVER



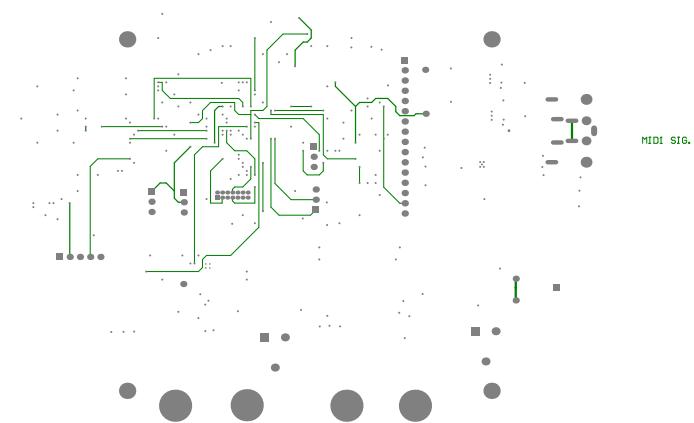
Alternative Class E amplifier

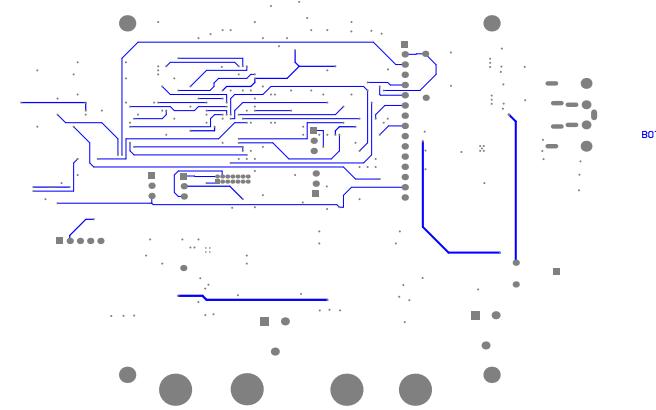
| Title<br>HEC - 13.56 MHz Receiver      |                       |                    |
|--|-----------------------|--------------------|
| Size<br>C                              | Number<br>Coil Driver | Revision<br>A      |
| Date:<br>1-30-2021                     | Sheet 4 of 4          |                    |
| File:<br>C:/Users/_T_CoilDriver.SchDoc |                       | Drawn By: D.F.F.F. |

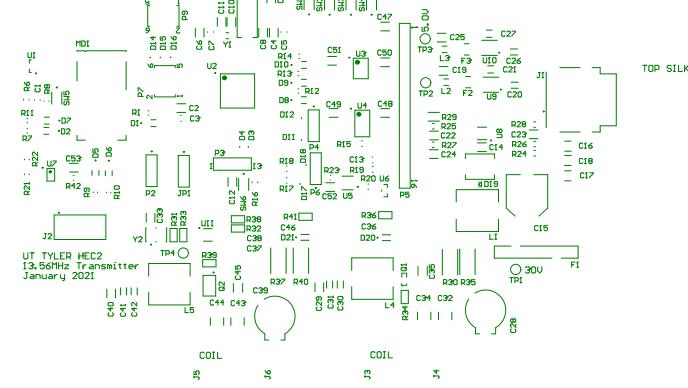




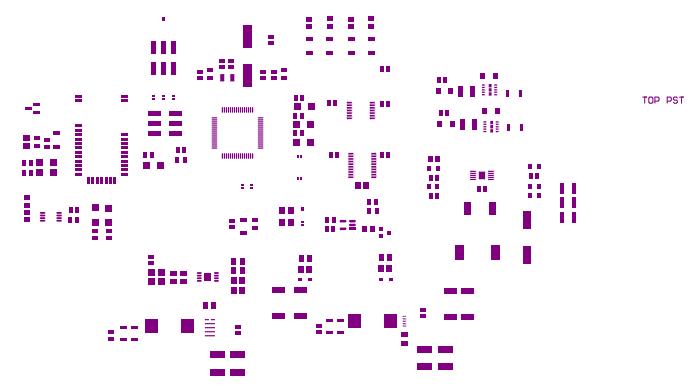
GND PLANE



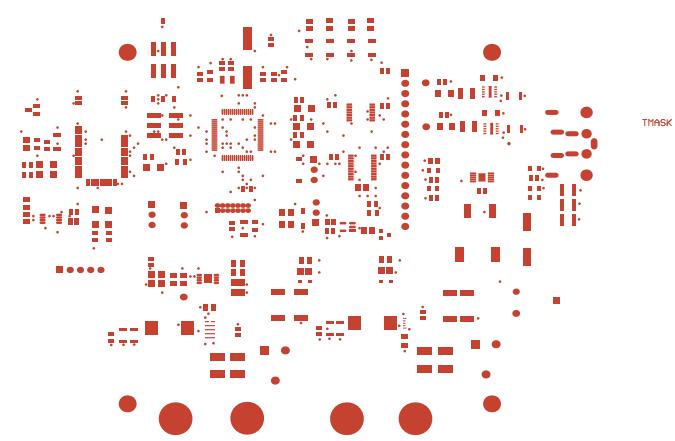




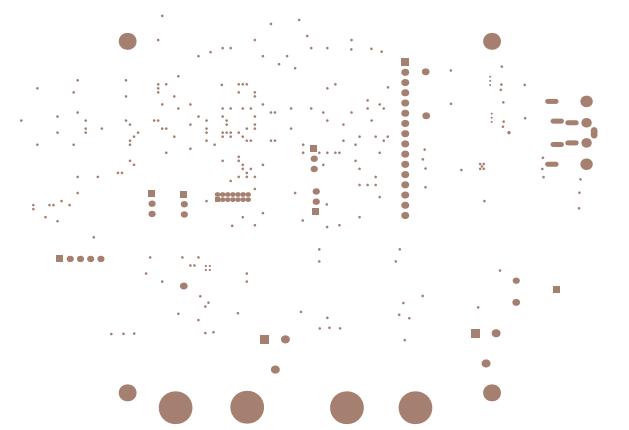




BOT PST



TMASK



BMASK

| Symbol    | Count | Hole Size           | Plated | Hole Type | Drill Layer Pair | Via/Pad | Pad Shape | Template             | Description | Hole Tolerance <+> | Hole Tolerance <-> | Hole Length         | Routed Path Length |
|-----------|-------|---------------------|--------|-----------|------------------|---------|-----------|----------------------|-------------|--------------------|--------------------|---------------------|--------------------|
| #         | 1     | 14.00mil (0.356mm)  | PTH    | Round     | TOP - BOTTOM     | Via     | Rounded   | v7lh36               |             | -                  | -                  | -                   | -                  |
| ▽         | 1     | 39.37mil (1.000mm)  | PTH    | Slot      | TOP - BOTTOM     | Pad     | Rounded   | r220_150h100_220r100 |             |                    |                    | 86.61mil (2.200mm)  | 47.24mil (1.200mm) |
| ◇         | 2     | 39.37mil (1.000mm)  | PTH    | Round     | TOP - BOTTOM     | Pad     | (Mixed)   |                      |             |                    |                    | -                   | -                  |
| ✖         | 2     | 66.93mil (1.700mm)  | PTH    | Round     | TOP - BOTTOM     | Pad     | Rounded   | c220h170             |             |                    |                    | -                   | -                  |
| ❖         | 2     | 86.61mil (2.200mm)  | PTH    | Round     | TOP - BOTTOM     | Pad     | Rounded   | c220h220             |             |                    |                    | -                   | -                  |
| □         | 4     | 125.00mil (3.175mm) | PTH    | Round     | TOP - BOTTOM     | Pad     | Rounded   | c406h318             |             |                    |                    | -                   | -                  |
| ○         | 4     | 157.40mil (4.000mm) | PTH    | Round     | TOP - BOTTOM     | Pad     | Rounded   | c800h400             |             |                    |                    | 106.30mil (2.700mm) | 82.68mil (2.100mm) |
| ✖         | 6     | 23.62mil (0.600mm)  | PTH    | Slot      | TOP - BOTTOM     | Pad     | Rounded   | r320_110h60_270r100  |             |                    |                    | -                   | -                  |
| ○         | 9     | 51.18mil (1.300mm)  | PTH    | Round     | TOP - BOTTOM     | Pad     | (Mixed)   | (Mixed)              |             |                    |                    | -                   | -                  |
| ○         | 9     | 40.00mil (1.016mm)  | PTH    | Round     | TOP - BOTTOM     | Pad     | (Mixed)   | (Mixed)              |             |                    |                    | -                   | -                  |
| ■         | 12    | 40.16mil (1.020mm)  | PTH    | Round     | TOP - BOTTOM     | Pad     | (Mixed)   | (Mixed)              |             |                    |                    | -                   | -                  |
| ▽         | 14    | 23.62mil (0.600mm)  | PTH    | Round     | TOP - BOTTOM     | Pad     | (Mixed)   | (Mixed)              |             |                    |                    | -                   | -                  |
| ❖         | 15    | 7.87mil (0.200mm)   | PTH    | Round     | TOP - BOTTOM     | Via     | Rounded   | (Mixed)              |             |                    |                    | -                   | -                  |
| ✖         | 16    | 43.31mil (1.100mm)  | PTH    | Round     | TOP - BOTTOM     | Pad     | (Mixed)   | (Mixed)              |             |                    |                    | -                   | -                  |
| ○         | 230   | 8.00mil (0.203mm)   | PTH    | Round     | TOP - BOTTOM     | Via     | Rounded   | v5lh20               |             |                    |                    | -                   | -                  |
| 324 Total |       |                     |        |           |                  |         |           |                      |             |                    |                    |                     |                    |

Slot definitions : Routed Path Length = Calculated from tool start centre position to tool end centre position.  
Hole Length = Routed Path Length + Tool Size = Slot length as defined in the PCB layout.

DRILL